

Patent Claims

1. Lustrous copper-based metal flakes that contain, in addition to copper, at least one additional metallic alloy component and are produced via vacuum deposition of metal films onto a carrier sheet, stripping of the films from the carrier sheet and subsequent comminuting of the films.
2. Lustrous copper-based metal flakes according to claim 1, **characterized in that** the flakes contain at least 60% copper and between 2 and 40% zinc.
3. Lustrous copper-based metal flakes according to claim 1 or 2, **characterized in that** the flakes contain silicon as an additional alloy component.
4. Lustrous copper-based metal flakes according to any of claims 1 through 3, **characterized in that** the flake-shaped effect pigment has plane-parallel surfaces and a thickness between 10 and 100 nm, preferably between 20 and 60 nm.
5. Lustrous, copper-based metal flakes according to any of claims 1 through 4, **characterized in that** the surface of the pigment particles is coated with an anticorrosive layer.
6. Lustrous copper-based metal flakes according to claim 5, **characterized in that** the anticorrosive layer contains aluminum oxide, silicon oxide, phosphate, phosphoric acid, phosphoric ester, phosphinic acid, silanes, organically modified silicates, titanates, zirconates or methacrylate-based polymer layers or combinations of these compounds.

7. A method for producing lustrous, copper-based metal flakes according to any of claims 1 through 6 with the following process steps:
- a) optionally applying a release coat on a carrier sheet
 - b) applying of a metal film onto the release coat or the carrier sheet
 - 5 c) stripping of the metal film
 - d) comminuting to pigment particles.
8. A method for producing lustrous copper-based metal flakes according to any of claim 1 through 6 with the following process steps:
- 10 a) applying of a metal film onto a carrier sheet
 - b) dissolving of the carrier sheet
 - c) comminuting of the metal film to pigment particles.
9. A method according to claim 7 or 8, **characterized in that** applying of the metal film takes place by separate evaporation of the alloy components.
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10. A method according to claim 7 or 8, **characterized in that** applying of the metal film takes place through separate evaporation of an alloy and one or more additional components.
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11. A method according to any of claims 7 through 10, **characterized in that** applying of the metal film takes place through electron beam, resistance heating, or radiation heating.
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12. A method according to any of claims 7 through 11, **characterized in that** applying of the metal film takes places through flash evaporation, simultaneous evaporation, or jumping beam evaporation.